

REMARKS

Claims 3 and 4 have been amended to address the Section 112 issue raised in paragraph 2 of the final office action. Perhaps this clarification of the language in these dependent claims will be the detail that allows the Examiner to see the difference between claim 1 and the cited Patel reference (US 2002/0066573).

There is no dispute as to the Patel final controlled element being the ball 22. The movable components in Patel are the collet actuator 13 and the sleeve 14 that is connected to it at one end and to ball 22 at the other end. In Patel, another mandrel 12 is connected to a j-slot and is cycled until it contacts collet actuator 13 to turn ball 22 to open. After the string 30 is removed a shifting member 17 engages the collet actuator 13 and moves it up to turn ball 22 to close. The shifting member can pull collet sleeve high enough to engage collet heads 215 into a groove 214. But the ball 22 is not locked at this time. The collet sleeve 13 is merely held in a detent position until mandrel 12 can be cycled to impact it and knock heads 215 out of groove 214 to reopen the valve. In short, any downhole tool, such as the string 30 or some other tool can knock collet heads 215 out of the detent groove 214. In fact the detent groove is designed to release the collet heads 215 to allow reopening of the valve with a physical impact.

Now comparing the operation of the Patel device to claim 1, there is no dispute that collet sleeve 13 moves in opposed directions to put the final controlled element 22 in the open and closed positions. The question is, does Patel have the claimed lock assembly and the answer is no. It is true that a predetermined movement of collet sleeve 13 will get collet heads 215 into groove 214. But the lock assembly of claim 1 requires more. As the Examiner has readily understood by the remarks in paragraph 2 of the final office action, the lock assembly is incapable of being moved by a force or pattern of forces applied to it. The Examiner has questioned how this could be while the claims 3 and 4 state that the lock assembly is selectively releasable. The amendments to claims 3 and 4 should clear this up. The lock assembly itself does not release once actuated. Other movements can occur to move the final controlled element anyway with the lock still in the locked position. As indicated in claims 3 and 4 one way to do this is to make part of the movable member move with respect to another. So, getting back to claim 1, the lock assembly gets locked and doesn't release despite application of force or a pattern of

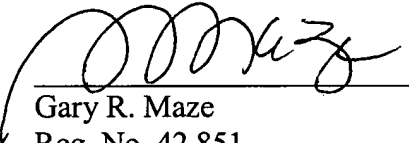
forces to it. Unlike Patel's claimed, by the Examiner, lock 216 which simply has collet heads 215 jump out of groove 214 when impacted with mandrel 12. This structure is not a lock assembly meeting the requirement of claim 1 and Patel does not anticipate this claim for that reason.

As to claim 16, an amendment has been made to deal with the Section 112 issues that the Examiner raised as to claim 1 because that same issue applies to claims 16. Just like claim 1 claim 16 indicates the lock remains locked while, in the case of claim 16, the valve member can be moved to the other position. This is not a feature that can be found in Patel. What the Examiner calls a lock in Patel is simply impacted and releases. Claim 16 does not contemplate the lock being released with impact. Again, as the described in the specification the locking effect of the lock in the locked position can be undermined to move the valve member without releasing the lock. One way to do that is to move a part of the mandrel attached to the valve member separately from another part of the mandrel that remains held by the lock.

Allowance of all the claims is respectfully requested.

Respectfully submitted,

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Gary R. Maze
Reg. No. 42,851
Duane Morris LLP
3200 Southwest Freeway
Suite 3150
Houston, TX 77027
Tel.: 713.402.3900
Fax: 713.402.3901

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